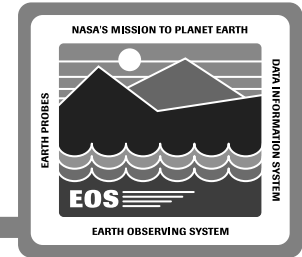


Events

Ginny Schmidt

17 October 1995

Events Overview



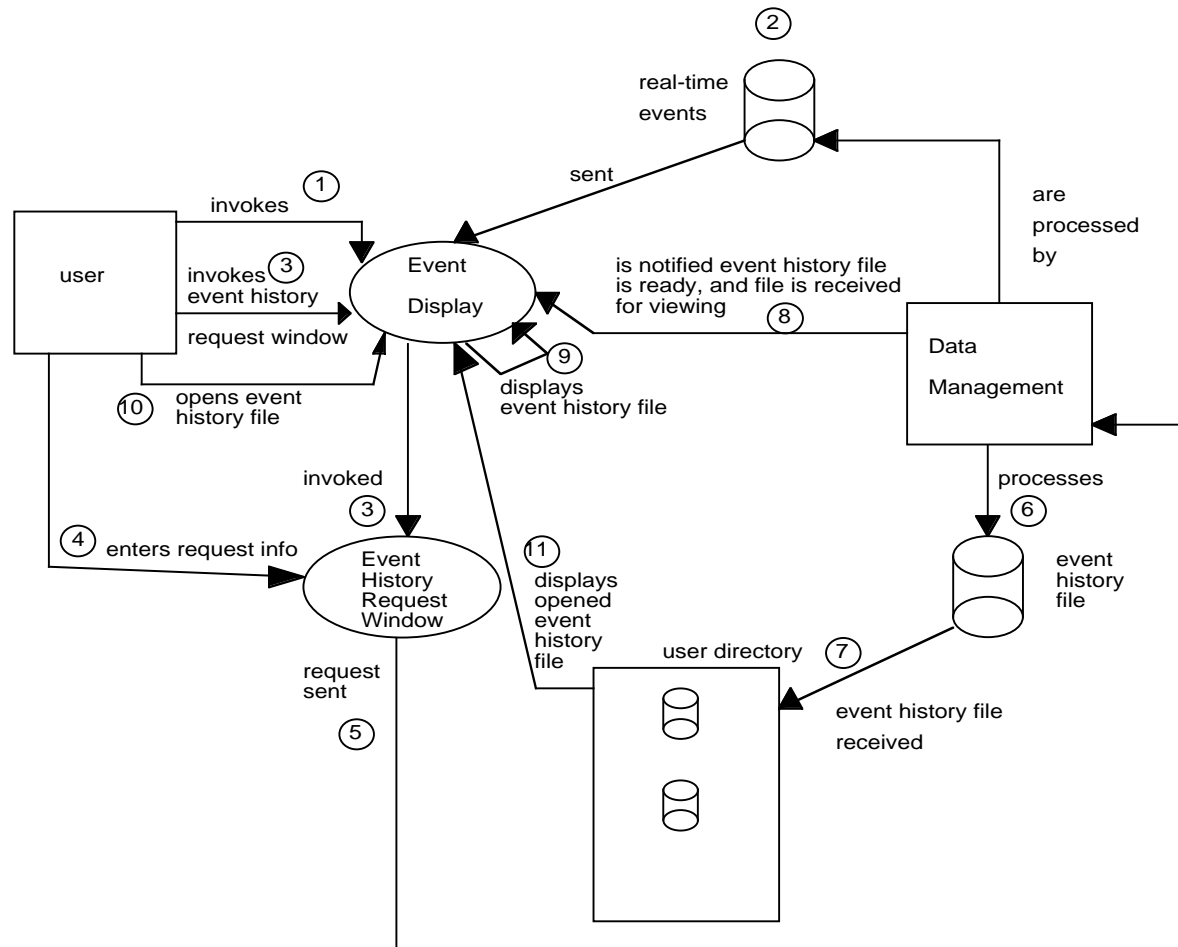
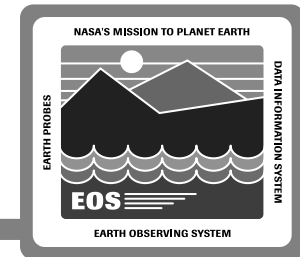
Event Display

- View real-time and history events

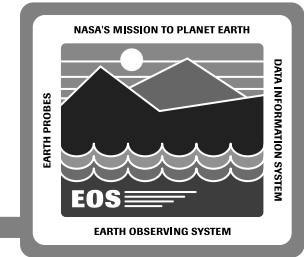
Event History Request Window

- Request a history event file

Events Context Diagram

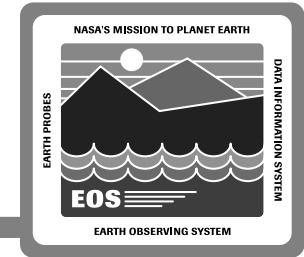


Events Context Overview



- 1. The user invokes the Event Display.**
 - 2. Real-time events are continuously fed into the Event Display from Data Management (DMS).**
 - 3. The user requests an event history file by invoking the Event History Request Window from the Event Display.**
 - 4. The user enters the event history request information.**
 - 5. The Event History Request Window sends the request to DMS.**
 - 6. DMS processes the event history file.**
 - 7. DMS places the event history file into the user's specified directory.**
- If the Event Display is active:**
- 8. DMS notifies the Event Display that the event history file is ready for viewing.**
 - 9. The Event Display displays the event history file.**

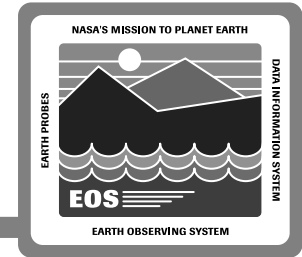
Events Context Overview



If the Event Display is activated at a different time after requesting an event history file:

- **10. The user opens a specified event history file from the file/open menu on the Event Display.**
- **11. The Event Display displays the event history file.**

Event Display



Displays real-time and historical events

- **Event text message display**

- **Provides filtering**

- Spacecraft subsystem (e.g., ASTER, CERES, MISR, MOSDIS, MOPITT, S/C bus, ...)**

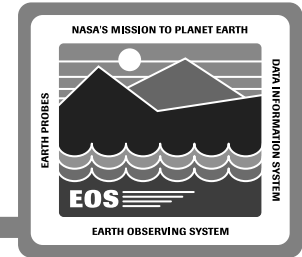
- Event type (e.g., telemetry, command, data management, user interface, analysis, planning and scheduling, system, ...)**

- severity (e.g., informational, warning, alarm)**

- **Provides the capability to filter/search for text in event messages**

- **Ability to freeze real-time events**

Event Display (Cont)



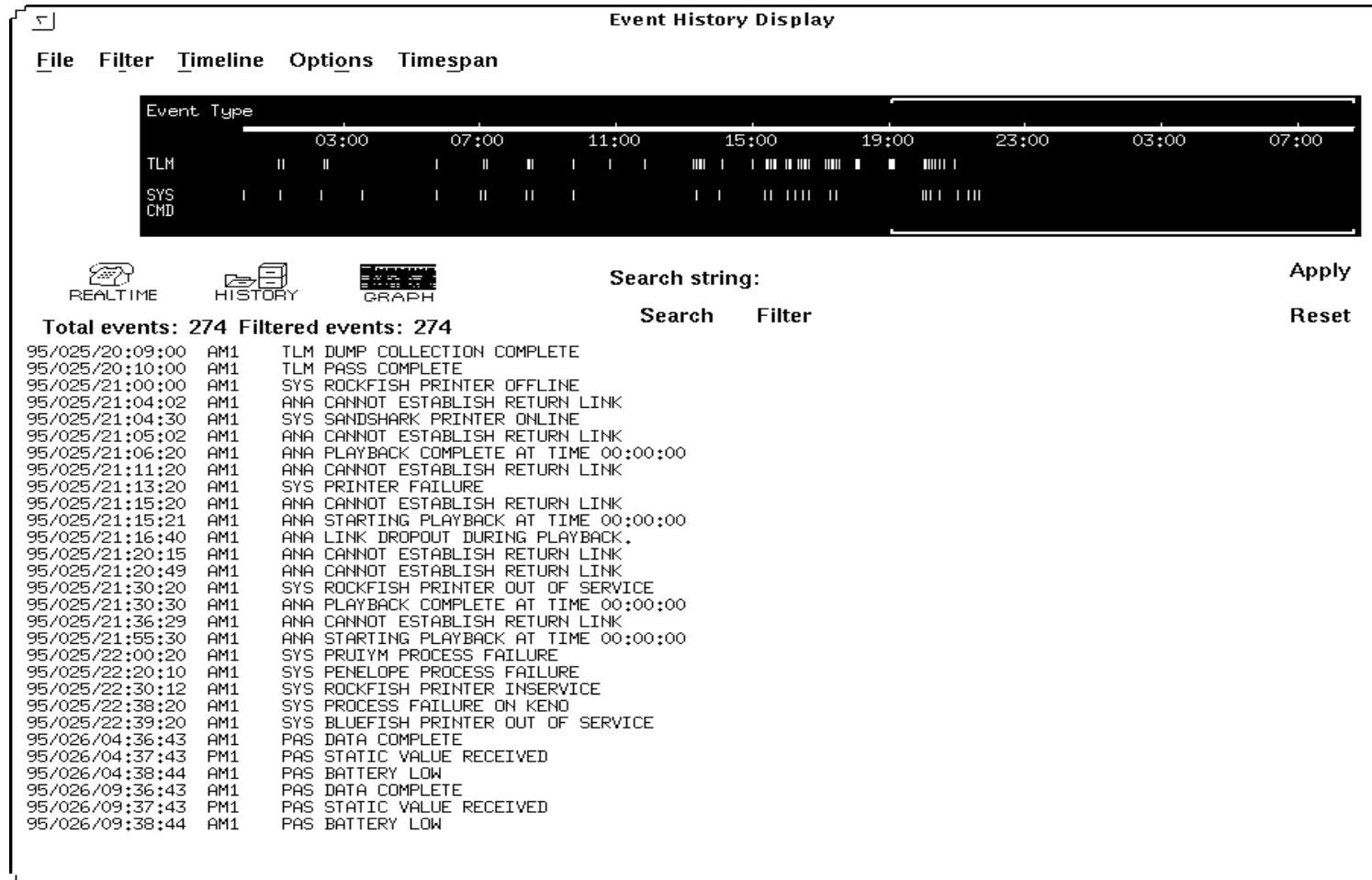
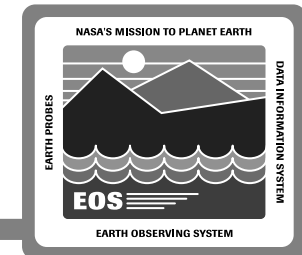
- **Graphical timeline display**
 - **Displays filter type names with their color coded markers**
 - **A slider shows where the events visible on the scrolled list are on the timeline**
 - **Zoom in/out**
 - **Hide/show timeline**

Request event history

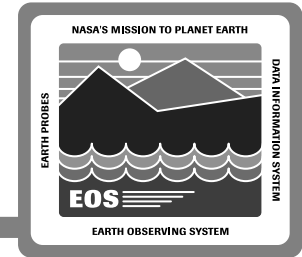
Reused heritage software from Hubble Space Telescope

- **Applied reverse engineering techniques for design**

Event Display



Event History Request Window



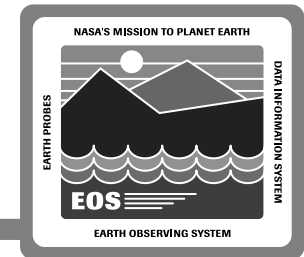
Provides criteria for an event history request

- **File name**
- **Target directory - User Customization will provide the default directory**
- **Uses FUI selection filter widget for subsystem filtering**
- **Uses FUI row column scroll widget for event type/severity filtering**
- **Uses FUI time selector for specifying start and stop times**

Event History Requests are sent to Data Management (DMS) for processing

- **DMS returns event data file to the target directory, and if the Event Display is running, DMS notifies it that the file is ready for viewing, and file is displayed**

Event History Request Window



Event History Request

File Name Target Directory

Filter by Subsystem

- ☒ AM1- AST
- ☒ AM1- SC/BUS - EPS
- ☒ FDF

Filter by Event Type

- ☐ TLM
- ☐ CMD
- ☒ CMS
- ☐ DMS
- ☒ FUI
- ☒ ANL
- ☐ PAS
- ☐ SYS

Filter by Severity

- ☐ INF
- ☒ WRN
- ☒ ALM

Start Time Stop Time